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EXAMINER

BELANI, KISHIN G

ART UNIT	PAPER NUMBER
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2443

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/822,022	Applicant(s) FUJII, KENICHI	
	Examiner KISHIN G. BELANI	Art Unit 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to Applicant's amendment filed on 04/02/2009.

Independent Claims 1 and 13 have been amended. Claims 1, 5-7, and 9-13 are now pending in the present application. The applicant's amendments to claims are shown in ***bold and italics*** and the examiner's response to the claim amendments is shown in **bold** in this office action. **This Action is made FINAL.**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent Publication # 5,444,849)** and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)**.

Consider **claim 1**, Mogul shows and discloses a communication apparatus (Fig. 1 that shows a printer 20 with a printer server 22 acting as a communication apparatus; column 3, lines 40-47 disclose the same details) comprising:
an instruction device adapted to instruct a communication partner to transmit data having a designated data length (Fig. 1, printer server 22 further acting as an instruction device; communication partners Personal Computers 14 and 16, Mini Computer 18; column 2, lines 27-32 which disclose that the printer will send (via printer server 22) an "open window" message, specifying a window size equal to the available memory in the printer);
a discrimination device adapted to discriminate a remaining storage capacity of a memory for storing data received from the communication partner (column 5, lines 5-11 which disclose that the "window" message informs the minicomputer 26 how much data the print server 22 can accommodate; further stating that when the print server 22 has limited memory, windows prevent the minicomputer interface 26 from sending more data than the print server 22 can store, otherwise data would be lost; claim 1 element (b) further disclosing a determining means responsive to the reception of the print

request data packets for determining the amount of memory means available for data to be printed); and

wherein the instruction device instructs the communication partner to interrupt data transmission by setting the designated data length to zero in case that no free space remains in the memory (column 5, lines 26-38 which disclose that when the print server 22 sends a closed window data packet 48 (in Fig. 4) to the minicomputer interface 26, TCP provides a “zero-window-probe”; column 2, lines 14-26 which disclose that the size specified can be zero, meaning the window is closed, thereby interrupting the data transmission; claim 1, element (c) (ii) which states sending a connection open return data packet to the requesting remote process and queuing the print request if there is no available memory, said connection open return data packet including data representing zero available memory).

However, Mogul does not specifically show and disclose a detection device adapted to detect a data output error in the communication apparatus; and by halting the instruction of the data transmission in case that the data output error is detected, ***and wherein the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time.***

In the same field of endeavor, Farrand et al. show and disclose the claimed communication apparatus, including a detection device adapted to detect a data output error in the communication apparatus; and by halting the instruction of the data

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transmission in case that the data output error is detected (abstract that discloses a protocol for communicating messages between a computer server manager and a remote client connected by a network; Fig. 1 that shows the basic layout of the claimed communication apparatus; Fig. 5 shows the detailed steps of the communication protocol; column 13, lines 24-63 that disclose different commands used by the protocol, including “NAK” (Negative Acknowledgement) used for negative acknowledgement of the non-receipt of a data or attention packet; column 15, lines 50-53 which disclose that in the event there is not enough buffer space to receive characters from the sender, the flow of data packets may be terminated; column 16, lines 30-32 that describe NAK as a data packet with a zero length and a code “15h” for a packet type, which when sent by a receiver of data (due to lack of free buffer space), causes temporary termination of data transmission; column 15, line 60 through column 16, line 50 describe receiving and detecting received data for validity; further disclosing in column 16, lines 38-45 that if the received packet ID byte is “bad”, i.e. is not identical to the known value that the packed ID byte should have (successive packet IDs are sequential in nature), the receiver disconnects at step 370 (in Fig. 5), thereby disclosing a detection device adapted to detect a data output error in the communication apparatus; and by halting the instruction of the data transmission in case that the data output error is detected).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a detection device adapted to detect a data output error in the communication apparatus, and by halting the instruction of the data transmission in case that the data output error is detected, as taught Farrand et al., in

the communication apparatus of Mogul, so as to be able to detect data transmission errors and stop data transmission until the cause of data errors is resolved.

However, Mogul, as modified by Farrand et al., does not specifically disclose that ***the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time.***

In the same field of endeavor, Eckerl shows and discloses the claimed communication apparatus, ***wherein the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time*** (abstract that discloses a communication apparatus; Figs. 1-2 that show the apparatus 100 along with its communication partners 200-210 (in Fig. 2); Fig. 3 that shows processor 300 (an instruction device) adapted to instruct a communication partner to transmit data; paragraph 0058 discloses fixed data length in terms of 64-byte blocks and 512-byte segments; paragraph 0064 which teaches that a connection manager routine 428 (in Fig. 4) provides control for establishing and maintaining communications between device 100 and other such devices, in order to synchronize communications between different devices 100; for each connection attempt, connection manager routine 428 first transmits a link request signal, then waits for an acknowledgement signal; if the acknowledgement signal is not received in

a certain time period, the connection manager routine 428 begins to listen for a link request signal at device 100 instead; if a link request signal is not received within a second time period, the connection attempt is deemed to have failed; after a set number of such attempts at establishing communication with a partner device, show timeout routine 426 is invoked to indicate an error and power off device 100, thereby disclosing that the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to make a determination by the communication partner that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time, as taught Eckerl, in the communication apparatus of Mogul, as modified by Farrand et al., so as to be able to limit the number of times the communication attempts are made, until the cause of the error is determined and resolved.

Consider **claim 13**, Mogul shows and discloses a communication method (Fig. 1 that shows a printer 20 with a printer server 22 communicating with Personal Computers 14 and 16 and a Mini Computer 18 over a LAN network; column 3, lines 37-47 disclose the same details) comprising:

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notifying a communication partner about a transmission data length (Fig. 1, printer server 22 notifying communication partners Personal Computers 14 and 16, and Mini Computer 18; column 2, lines 27-32 which disclose that the printer will send (via printer server 22) an “open window” message, specifying a window size (transmission data length) equal to the available memory in the printer);

discriminating a remaining storage capacity of a memory for storing data received from the communication partner (column 5, lines 5-11 which disclose that the “window” message informs the minicomputer 26 how much data the print server 22 can accommodate; further stating that when the print server 22 has limited memory, windows prevent the minicomputer interface 26 from sending more data than the print server 22 can store, otherwise data would be lost; claim 1 element (b) further disclosing a determining means responsive to the reception of the print request data packets for determining the amount of memory means available for data to be printed); and wherein the transmission data length that the communication partner is notified about is set at zero in case that no free space remains in the memory (column 5, lines 26-38 which disclose that when the print server 22 sends a closed window data packet 48 (in Fig. 4) to the minicomputer interface 26, TCP provides a “zero-window-probe”; column 2, lines 14-26 which disclose that the size specified can be zero, meaning the window is closed, thereby interrupting the data transmission; claim 1, element (c) (ii) which states sending a connection open return data packet to the requesting remote process and queuing the print request if there is no available memory, said connection open return data packet including data representing zero available memory).

However, Mogul does not specifically show and disclose detecting a data output error in the communication apparatus; and halting the instruction of data transmission, in case that the data output error is detected; and wherein ***the communication partner determining that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data during a predetermined period of time.***

In the same field of endeavor, Farrand et al. show and disclose the claimed communication method, including detecting a data output error in the communication apparatus; and halting the instruction of the data transmission, in case that the data output error is detected (abstract that discloses a protocol for communicating messages between a computer server manager and a remote client connected by a network; Fig. 1 that shows the basic layout of the claimed communication apparatus; Fig. 5 shows the detailed steps of the communication protocol; column 13, lines 24-63 that disclose different commands used by the protocol, including “NAK” (Negative Acknowledgement) used for negative acknowledgement of the non-receipt of a data or attention packet; column 15, lines 50-53 which disclose that in the event there is not enough buffer space to receive characters from the sender, the flow of data packets may be terminated; column 16, lines 30-32 that describe NAK as a data packet with a zero length and a code “15h” for a packet type, which when sent by a receiver of data (due to lack of free buffer space), causes temporary termination of data transmission; column 15, line 60 through column 16, line 50 describe receiving and detecting received data for validity; further disclosing in column 16, lines 38-45 that if the received packet ID byte is “bad”,

i.e. is not identical to the known value that the packed ID byte should have (successive packet IDs are sequential in nature), the receiver disconnects at step 370 (in Fig. 5), thereby disclosing a detection device adapted to detect a data output error in the communication apparatus; and halts the instruction of the data transmission in case that the data output error is detected).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a detection device adapted to detect a data output error in the communication apparatus, and halt the instruction of the data transmission in case that the data output error is detected, as taught Farrand et al., in the communication method of Mogul, so as to be able to detect data transmission errors and stop data transmission until the cause of data errors is resolved.

However, Mogul, as modified by Farrand et al., does not specifically disclose that ***the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time.***

In the same field of endeavor, Eckerl shows and discloses the claimed communication method, ***wherein the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time*** (abstract that discloses a communication method; Figs. 1-2 that show the apparatus 100 along with its communication partners 200-

210 (in Fig. 2); Fig. 3 that shows processor 300 (an instruction device) adapted to instruct a communication partner to transmit data; paragraph 0058 discloses fixed data length in terms of 64-byte blocks and 512-byte segments; paragraph 0064 which teaches that a connection manager routine 428 (in Fig. 4) provides control for establishing and maintaining communications between device 100 and other such devices, in order to synchronize communications between different devices 100; for each connection attempt, connection manager routine 428 first transmits a link request signal, then waits for an acknowledgement signal; if the acknowledgement signal is not received in a certain time period, the connection manager routine 428 begins to listen for a link request signal at device 100 instead; if a link request signal is not received within a second time period, the connection attempt is deemed to have failed; after a set number of such attempts at establishing communication with a partner device, show timeout routine 426 is invoked to indicate an error and power off device 100, thereby disclosing that the communication partner determines that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a predetermined period of time).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to make a determination by the communication partner that an error has occurred in the communication apparatus when the communication partner receives no instruction to transmit data from the instruction device during a

predetermined period of time, as taught Eckerl, in the communication method of Mogul, as modified by Farrand et al., so as to be able to limit the number of times the communication attempts are made, until the cause of the error is determined and resolved.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent Publication # 5,444,849)** and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)** and further in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)**.

Consider **claim 5**, and **as it applies to claim 1 above**, Mogul, as modified by Farrand et al., and Eckerl, discloses the claimed communication apparatus, except wherein the instruction device instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard.

In the same field of endeavor, Kawamura discloses the claimed communication apparatus, wherein the instruction device instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard (paragraph 0003 which discloses that the short-distance Bluetooth wireless communication system accommodates profiles which specify how the data transmission is carried out for each data type to be transmitted).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the instruction device that instructs the communication partner to perform the data transmission based on a predetermined profile procedure of the Bluetooth standard, as taught Kawamura, in the communication apparatus of Mogul, as modified by Farrand et al., and Eckerl, so as to be able to wirelessly print digital images from a digital camera when the camera is in proximity of a printer with Bluetooth capabilities.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent Publication # 5,444,849)** and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)** and further in view of **Kawamura (U.S. Patent Application Publication # 2002/0155808 A1)** and further in view of **DPOF Version 1.10 (at the website http://panasonic.jp/dc/dpof_110/white_e.htm dated July 17, 2000, printed copy provided).**

Consider **claim 6**, and **as it applies to claim 5 above**, Mogul, as modified by Farrand et al., Eckerl, and Kawamura, disclose the claimed communication apparatus, except wherein the predetermined profile procedure is the Advanced Image Printing defined in the Basic Imaging Profile of the Bluetooth standard.

In the same field of endeavor, Panasonic Website listed above discloses the claimed Advanced Image Printing profile procedure defined in the Basic Imaging Profile of the Bluetooth standard (page 3, section 3-2 (Advanced functions)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the Advanced Image Printing profile procedure defined in the Basic Imaging Profile of the Bluetooth standard, as taught by DPOF Version 1.10 specifications, in the communication apparatus of Mogul, as modified by Farrand et al., Eckerl, and Kawamura, so as to be able to utilize advanced features of DPOF for functions associated with digital cameras and printers.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent Publication # 5,444,849)** and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)** and further in view of **Taniguchi et al. (US Patent Publication # 5,999,707)**.

Consider **claim 7**, and **as it applies to claim 1 above**, Mogul, as modified by Farrand et al., and Eckerl, discloses the claimed communication apparatus, further comprising:

a disconnection request halt device adapted to halt transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment device and a result of detection

by the detection device (in Farrand et al. reference, Fig. 5 shows the detailed structure of the claimed communication apparatus and protocol; column 13, lines 24-63 that disclose different commands used by the protocol, including “NAK” (Negative Acknowledgement) used for negative acknowledgement of the non-receipt of a data or attention packet; column 15, lines 50-53 which disclose that in the event there is not enough buffer space to receive characters from the sender, the flow of data packets may be terminated; column 16, lines 30-32 that describe NAK as a data packet with a zero length and a code “15h” for a packet type, which when sent by a receiver of data (due to lack of free buffer space), causes termination of data transmission; column 15, line 60 through column 16, line 50 describe receiving and detecting received data for validity; further disclosing in column 16, lines 38-45 that if the received packet ID byte is “bad”, i.e. is not identical to the known value that the packed ID byte should have (successive packet IDs are sequential in nature), the receiver disconnects at step 370 (in Fig. 5), thereby disclosing a disconnection request halt device adapted to halt transmission of a disconnection request requesting disconnection of communication with the communication partner in accordance with a result of judgment by the judgment device and a result of detection by the detection device).

However, Mogul, as modified by Farrand et al., and Eckerl, do not specifically disclose a storage device adapted to store a data list received from the communication

partner; and a judgment device adapted to judge whether every data contained in the data list is acquired.

In the same field of endeavor, Taniguchi et al. discloses the claimed communication apparatus, further comprising a storage device adapted to store a data list received from the communication partner (Fig. 4, NVRAM 18; column 2, lines 35-37 that describe the circuit configuration of a printer shown in Fig. 4; column 5, lines 45-50 which disclose that NVRAM 18 contains job list data, thereby disclosing a storage device for storing a data list received from the communication partner); and a judgment device adapted to judge whether every data contained in the data list is acquired (Fig. 10B which shows a display of the "Print Job Management Data", listing all the generated job IDs, thereby disclosing a judgment device for judging whether every data contained in the data list is acquired; column 10, lines 46-58 that disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a storage device adapted to store a data list received from the communication partner; and a judgment device adapted to judge whether every data contained in the data list is acquired, as taught by Taniguchi et al., in the communication apparatus of Mogul, as modified by Farrand et al., and Eckerl, so that a number of print requests can be simultaneously transmitted and processed.

Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent**

Publication # 5,444,849) and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)** and further in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1).**

Consider **claim 9**, and **as it applies to claim 1 above**, Mogul, as modified by Farrand et al., and Eckerl, discloses the claimed communication apparatus, except wherein the instruction device instructs the communication partner to perform the data transmission from data following already received data when the error detected by the detection device is removed.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, wherein the instruction device instructs the communication partner to perform the data transmission from data following already received data when the error detected by the detection device is removed (Fig. 5, command interpreter 66 acting as the instruction device, host computer 61 acting as the communication partner; column 20, lines 9-14 which disclose that printing can be resumed without destroying the data already received once the cause of the error is corrected, thereby disclosing that the host computer performs the data transmission from data following already received data when the error detected by the detection device is removed).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an instruction device that instructs the communication partner to perform the data transmission from data following already received data when the error detected by the detection device is removed, as taught by

Miyasaka et al., in the communication apparatus of Mogul, as modified by Farrand et al., and Eckerl, so as to be able to continue print processing after recovery from error such as out-of-paper or paper jam.

Consider **claim 12**, and **as it applies to claim 1 above**, Mogul, as modified by Farrand et al., and Eckerl, discloses the claimed communication apparatus, except further comprising a judgment device adapted to judge a type of the error detected by the detection device, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, further comprising:
a judgment device adapted to judge a type of the error detected by the detection device (Fig. 5, Control 68 which receives and analyzes the type of errors detected by detectors 71, 47 and 54; flowchart in Fig. 13, decision blocks 211 and 213 disclosing a judgment device for a type of the error detected by the detection device; column 20, lines 9-14 that disclose the same details);
wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device (Fig. 5, command interpreter 66 acting as the instruction device, host

computer 61 acting as the communication partner; column 20, lines 15-18 which disclose that when recovering from an error, a user may choose to resume printing after destroying the data already transmitted to the printing apparatus, thereby disclosing a request to the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a judgment device adapted to judge a type of the error detected by the detection device, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device, as taught by Miyasaka et al., in the communication apparatus of Mogul, as modified by Farrand et al., and Eckerl, so as to be able to continue print processing after recovery from a recoverable error.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent Publication # 5,444,849)** and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)** and further in view of **Shigemori (U.S. Patent Publication # 6,466,963 B1)**.

Consider **claim 10**, and **as it applies to claim 1 above**, Mogul, as modified by Farrand et al., and Eckerl, discloses the claimed communication apparatus, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception when the error detected by the detection device is removed.

In the same field of endeavor, Shigemori discloses the claimed communication apparatus, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception when the error detected by the detection device is removed (Fig. 7, time out block 340 that starts a countdown timer with a set period within which if the transmission is not complete, the timer is reset back to the set period and a retransmission is initiated; this process being repeated for a fixed number of times, before aborting with an error; the use of timer comprising a detection device for detecting a data output error in the communication apparatus and upon removal of the error (resetting and restarting of timer), repeating retransmission being indicative of the instruction device instructing the communication partner to perform the data transmission from a start of data under reception in accordance with a result of error removal detection by the detection device; column 6, lines 55-67 and column 7, lines 1-22 that disclose the same details).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an instruction device, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception when the error detected by the detection device is removed, as

taught by Shigemori, in the communication apparatus of Mogul, as modified by Farrand et al., and Eckerl, so as to be able to recover from a temporary loss of transmission capability.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mogul (US Patent Publication # 5,014,221)** in view of **Farrand et al. (U.S. Patent Publication # 5,444,849)** and further in view of **Eckerl (US Patent Application Publication # 2004/0200896 A1)** and further in view of **Miyasaka et al. (US Patent Publication # 6,362,896 B1)** and further in view of **Chiba et al. (US Patent Publication # 6,665,088 B1)**.

Consider **claim 11**, and **as it applies to claim 1 above**, Mogul, as modified by Farrand et al., and Eckerl, discloses the claimed communication apparatus, except further comprising a judgment device adapted to, when the detection device detects the error, judge whether already received data is lost, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device.

In the same field of endeavor, Miyasaka et al. show and disclose the claimed communication apparatus, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error

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removal detection by the detection device (Fig. 5, command interpreter 66 acting as the instruction device, host computer 61 acting as the communication partner; column 20, lines 15-18 which disclose that when recovering from an error, a user may choose to resume printing after destroying the data already transmitted to the printing apparatus, thereby disclosing a request to the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an instruction device, wherein the instruction device instructs the communication partner to perform the data transmission from a start of data under reception in accordance with a result of judgment by the judgment device and a result of error removal detection by the detection device, as taught by Miyasaka et al., in the communication apparatus of Mogul, as modified by Farrand et al., and Eckerl, so as to be able to continue print processing after recovery from a recoverable error.

However, Mogul, as modified by Farrand et al., Eckerl, and Miyasaka et al., does not disclose a judgment device adapted to, when the detection device detects the error, judge whether already received data is lost.

In the same field of endeavor, Chiba et al. show and disclose the claimed communication apparatus, further comprising means for judging whether already received data is lost (column 10, lines 13-27 which disclose a buffer underrun error,

resulting in retransmission of all the data starting at the first band, and including all subsequent bands of image data)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a judgment device adapted to, when the detection device detects the error, judge whether already received data is lost, as taught by Chiba et al., in the communication apparatus of Mogul, as modified by Farrand et al., Eckerl, and Miyasaka et al., so as to be able to continue print processing after recovery from a non-recoverable error, requiring retransmission of the previously transmitted data.

Response to Arguments

Applicant's arguments with respect to **claims 1, 5-7 and 9-13** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kishin G. Belani whose telephone number is (571) 270-1768. The Examiner can normally be reached on Monday-Friday from 6:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-0800.

/K. G. B./
Examiner, Art Unit 2443

July 20, 2009

/George C Neurauter, Jr./

Primary Examiner, Art Unit 2443